

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.

Rulemaking 13-11-005 (Filed November 14, 2013)

ADMINISTRATIVE LAW JUDGE'S RULING REGARDING POST-2015 ENERGY EFFICIENCY POTENTIAL AND GOALS, AND DATABASE FOR ENERGY EFFICIENT RESOURCES UPDATES

1. Introduction

This ruling requests comments on Commission Staff's proposal for energy savings goals for energy efficiency program administrators (PAs) after the current portfolio concludes in 2014. "Energy savings goals" refers to the amount of electricity and natural gas – measured in kilowatt hours, therms and megawatts – that PAs should design their post-2015 energy efficiency portfolios to save. Revised post-2015 energy savings goals will guide PAs as they make their post-2015 portfolio filings.

This ruling also requests comments on updates to the Database for Energy Efficient Resources.

2. Post-2015 Energy Efficiency Goals

Public Utilities Code Sections 454.55 and 454.56(a) require the California Public Utilities Commission (Commission), in consultation with the California Energy Commission (CEC), to identify potentially achievable cost-effective electricity and natural gas efficiency savings and establish efficiency targets for

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electrical or gas corporations to achieve.¹ Commission staff recommends that the Commission set energy efficiency goals for post-2015 using the "Energy Efficiency Potential and Goals Study for 2015 and Beyond" (Navigant study) that Navigant Consulting, Inc. (Navigant) has prepared for the Commission. The Navigant Study is posted on the Commission website.² Commission staff further recommends that the Commission adopt post-2015 energy efficiency goals, as discussed in Appendix A to this ruling. This ruling puts the Navigant study and the associated energy savings goals out for comment.

3. Database for Energy Efficient Resources Updates

The Commission has various processes for estimating energy savings *before* (*ex ante*) installation of a given energy efficiency measure. We refer to these processes generically as *ex ante* review. *Ex ante* review provides, among other things, a basis for PAs to estimate the savings their energy efficiency portfolios will provide.

We base *ex ante* savings estimates on predictions of typical operating conditions and baseline usage. One repository for these predictions is the Commission-maintained Database for Energy Efficient Resources (DEER). DEER

¹ Cal. Pub. Util. Code § 454.55: "The commission, in consultation with the State Energy Resources Conservation and Development Commission, shall identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation to achieve pursuant to Section 454.5."

Cal. Pub. Util. Code § 454.56: "(a) The commission, in consultation with the State Energy Resources Conservation and Development Commission, shall identify all potentially achievable cost-effective natural gas efficiency savings and establish efficiency targets for the gas corporation to achieve."

² http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Energy+Efficiency+Goals+and+Potential+Studies.htm. Hard copy will be placed in the central file at the Commission.

provides energy savings estimates for typical energy efficient technologies and measures. The database contains information and data, such as unit energy savings, effective useful life values, and net to gross ratios, for measures commonly installed in the marketplace.

DEER requires periodic updating. Commission staff proposes to update DEER in 2015 with additional and revised savings values as described here: http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/DEER+Updates.htm. To summarize, Commission staff propose the following updates:

- The Uncertain Measures Update
 - o to be applied to the portfolio starting on June 1, 2015 (this would mean the figures would be applied back to June 1, 2015 if approved in an August decision).
 - consists of updates to
 - screw-in CFLs of all types with wattages of 30 watts and less,
 - T5 fluorescent lamps and fixtures replacing metal halide, and
 - Recycled Refrigerator/Freezer measures impacted by Federal Refrigerator/Freezer standard updates as well as the results of the Appliance Recycling Program Evaluation.
- The DEER 2015 Update
 - o consists of updates to reflect code changes that went into effect in 2014 and in 2015.
- The DEER 2016 Update
 - o applied to the 2016 portfolio starting on January 1, 2016
 - consists of updates to non-residential lighting profiles, lighting technologies, HVAC technologies, residential appliance technologies, effective useful life values, net

to gross ratio values, and gross savings installation adjustment values.

4. Questions for Comment

This ruling puts these updates out for comment. Parties are to respond to the following questions in their comments:³

A. Potential and Goals

- a. Does the Navigant study present a reasonable and appropriate assessment of the energy efficiency potential available for program administrators to capture?
- b. What changes, if any, should be made to improve its accuracy?
- c. Are Staff's recommendations appropriate for the application of the 2015 Potential and Goals Study to post-2015 goals? If not, why not, and how should they be changed?

B. DEER Updates

- a. Should the Commission adopt Commission Staff's proposed revisions to DEER?
- b. If not, why not?

IT IS RULED:

1. Parties may comment on the Navigant Study, which is available for review at

http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Energy
+Efficiency+Goals+and+Potential+Studies.htm

³ Parties that do not have a response to a question should identify the question and state "no comment."

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2. Parties may comment on the proposed goals for 2016 and beyond set forth in Appendix A to this ruling.

3. Parties may comment on the proposed DEER updates, which are available for review at:

http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/DEER+ Updates.htm

4. Hardcopy of the Navigant study and the proposed DEER updates shall be placed in the formal file for this proceeding.

5. Parties that choose to comment shall file and serve their comments responding to the questions in this ruling on or before June 8, 2015. No reply comments are permitted.

Dated May 15, 2015, at San Francisco, California.

/s/ TODD O. EDMISTER

Todd O. Edmister

Administrative Law Judge

APPENDIX A

APPENDIX A

Commission Staff Addendum on the Application of the 2015 Potential and Goals Study

Background

This staff addendum provides recommendations for the application of the 2015 Goals and Potential Study (2015 Study) to post-2015 Program Administrator (PA) energy efficiency portfolio goals. Commission Staff are providing goals for the next nine years, but propose that these goals to be superseded at two year intervals as discussed in Commission Staff's white paper on Rolling Portfolio Cycle implementation.

Public Utility (PU) Code 454.55 requires that the Commission, in consultation with the California Energy Commission (CEC), shall identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation to achieve pursuant to Section 454.5. To meet this statutory requirement, the Commission contracted Navigant Consulting to develop the 2015 Potential and Goals Study. The Study is expected to meet two primary purposes:

- 1. Establish savings goals for the utilities energy efficiency portfolios and
- 2. Inform the forecast for energy procurement planning through the Integrated Energy Policy Report (IEPR) demand forecast.

To this end, the approach to setting goals was expected to be "aggressive yet achievable," support long-term planning, encourage a focus on long-term savings; and "be based on the best available data." The 2015 Study updates Navigant's 2013 Potential Study, which was used to establish 2015 goals.

The 2015 update maintained the 2013 Study methodology and model infrastructure improving upon the usability of the model. The 2015 updated was primarily a data refresh to the model; it updated the model's inputs using the Database for Energy Efficient Resources (DEER) 2014 and DEER2015 Updates, 2010-12 Evaluation, Measurement, and Verification (EM&V) results, recent market studies, recent incremental cost studies, and other newly available data. The development of the 2015 Study has been vetted on an ongoing basis by the Demand Analysis Working Group (DAWG)⁸; a collaborative public forum coordinated jointly by the California Energy

⁵ D.04-09-060, p.35

⁴ D.04-09-060, p.3

⁶ D.07-10-032, p.5

⁷ D.08-07-047, pgs.18-19

⁸ The 2015 Study will also be used to inform the IEPR demand forecast prepared by the California Energy Commission (CEC). The CEC will collaborate with the California Independent System Operator and the Commission, with input from the Demand Analysis

Commission and this Commission. The application of the Study to the demand forecast will also be vetted by the working group.

Goals Framework

In D.12-05-015, the Commission determined that 2013-2014 goals should be established as follows:

- 1. Use the 2011 potential study and codes & standards advocacy savings estimates as the basis for goals, applying 100% of incremental market potential to Program Administrator program goals;
- 2. Establish separate targets for Program Administrator programs and codes & standards advocacy;
- 3. Goals applied on a gross basis per current policy; and
- 4. Set annual goals for 2013-14 cycle.

The goals framework was carried over to apply to the 2015 cycle in D.14-10-046. For post-2015 planning, staff proposes to maintain the goals framework established in D.12-05-01 and D.14-10-046 and to apply the results of the 2015 Potential and Goals Study. The annual goals in Tables 1, 2, and 3 are preliminary and may be updated based on party comments and Commission review.

Note that we propose only adopting annual goals. Prior to the D.12-05-015 decision, Commission policy required administrators to meet both annual and cumulative savings goals. The purpose of cumulative goals is to encourage administrators to invest in energy efficiency measures that produce persistent savings. The Commission in D.12-05-015 adopted only annual goals for 2013-14, indicating that challenges remained with the application of cumulative goals to PA portfolios. Subsequently, D.13-09-023 adopted the Efficiency Savings and Performance Incentive Mechanism, which scaled incentive earnings to lifecycle savings. This approach effectively addresses our desire to encourage the utilities to maximize long term savings. Therefore, consistent with D.12-05-015, we propose that the Commission only adopt annual and not cumulative goals.

Proposed Goals

The following goals tables were created as an output from the 2015 Potential and Goals Study model, present on pages xi-xii in the executive summary of the report, which can be found at:

 $\frac{http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Energy+Efficiency+Goals+and+Potential+Studies.htm$

Working Group, to choose the appropriate scenario for the Additional Achievable Energy Efficiency Forecast from the 2015 Study.

Table 1. Annual GWh

| | PG&E | | | SCE | | | SDG&E | | |
|------|----------------|------------|-------|----------------|------------|-------|----------------|------------|-------|
| Year | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total |
| 2016 | 687 | 611 | 1,298 | 759 | 631 | 1,390 | 193 | 143 | 336 |
| 2017 | 703 | 506 | 1,210 | 778 | 522 | 1,300 | 196 | 119 | 315 |
| 2018 | 555 | 408 | 963 | 581 | 421 | 1,003 | 145 | 96 | 240 |
| 2019 | 558 | 401 | 959 | 598 | 414 | 1,012 | 147 | 94 | 241 |
| 2020 | 563 | 381 | 944 | 616 | 393 | 1,009 | 150 | 89 | 239 |
| 2021 | 569 | 326 | 895 | 624 | 337 | 961 | 155 | 76 | 231 |
| 2022 | 580 | 295 | 874 | 638 | 304 | 942 | 159 | 69 | 227 |
| 2023 | 591 | 254 | 846 | 647 | 262 | 909 | 161 | 59 | 220 |
| 2024 | 609 | 240 | 849 | 661 | 247 | 908 | 164 | 56 | 220 |

Table 2. Annual MW

| | PG&E | | | \$ | SCE | | SDG&E | | |
|------|----------------|------------|-------|----------------|------------|-------|----------------|------------|-------|
| Year | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total |
| 2016 | 96 | 141 | 237 | 136 | 145 | 281 | 28 | 33 | 61 |
| 2017 | 99 | 105 | 204 | 138 | 108 | 246 | 29 | 25 | 54 |
| 2018 | 78 | 103 | 181 | 109 | 106 | 215 | 21 | 24 | 46 |
| 2019 | 78 | 103 | 182 | 113 | 107 | 219 | 22 | 24 | 46 |
| 2020 | 80 | 101 | 181 | 117 | 104 | 221 | 23 | 24 | 46 |
| 2021 | 83 | 94 | 178 | 120 | 97 | 217 | 23 | 22 | 45 |
| 2022 | 88 | 90 | 178 | 124 | 92 | 216 | 24 | 21 | 45 |
| 2023 | 93 | 84 | 177 | 127 | 87 | 214 | 25 | 20 | 45 |
| 2024 | 97 | 82 | 179 | 132 | 84 | 216 | 26 | 19 | 45 |

Table 3. Annual MMTherms

| | PG&E | | | SCG | | | SDG&E | | |
|------|----------------|------------|-------|----------------|------------|-------|----------------|------------|-------|
| Year | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total | PA Programs | Net C&S | Total |
| 2016 | 13.1 | 5.5 | 18.6 | 15.4 | 11.7 | 27.2 | 2.6 | 0.6 | 3.2 |
| 2017 | 13.1 | 5.7 | 18.8 | 16.3 | 12.2 | 28.5 | 2.8 | 0.6 | 3.4 |
| 2018 | 14.8 | 6.1 | 20.9 | 16.1 | 12.7 | 28.9 | 3.1 | 0.7 | 3.8 |
| 2019 | 14.9 | 6.2 | 21.1 | 17.5 | 12.6 | 30.1 | 3.2 | 0.7 | 3.9 |
| 2020 | 15.7 | 6.2 | 21.9 | 18.0 | 12.2 | 30.1 | 3.3 | 0.7 | 4.0 |
| 2021 | 16.4 | 5.9 | 22.3 | 18.4 | 10.9 | 29.2 | 3.3 | 0.7 | 4.0 |
| 2022 | 17.1 | 5.7 | 22.9 | 18.8 | 10.3 | 29.1 | 3.3 | 0.6 | 4.0 |
| 2023 | 17.9 | 5.6 | 23.5 | 19.1 | 9.6 | 28.7 | 3.3 | 0.6 | 4.0 |
| 2024 | 18.5 | 5.3 | 23.9 | 19.4 | 9.1 | 28.5 | 3.4 | 0.6 | 4.0 |